

NONPATENT LITERATURE BIBLIOGRAPHIC FILES:

Set	Items	Postings	Description
S1	3189137	8676429	S MUSCLE? OR MUSCULAT? OR INTRAMUSC? OR INTERMUSC? OR ENDOMUSC? OR TRANSMUSC?
S2	1898	6072	S (LONGISSIMUS OR LONGISIMMUS? OR LONGISIMUS?) (3N) (THORAC? OR THORAX?)
S3	1767	4210	S MULTIFIDUS? OR MULTI() (FIDUS? OR FIDIS?) OR MULTIFIDIS?
S4	15340	60977	S LATISS?()DORS?
S5	16352056	36007982	S SURGER? OR SURGIC? OR SURGEON? OR MEDICAL? OR ORTHOPED? OR ORTHOPAED?
S6	80506	236048	S ARTHROPEDE? OR ARTHROPAED? OR MEDICAL?() (PROCEDUR? OR OPERAT?) OR ARTHROSCOP?
S7	3399920	6879304	S OPERAT???()ROOM? ? OR HOSPITAL? OR EMERGENCY()ROOM? ? OR CHIRURG?
S8	747795	3632517	S S1:S4 AND S5:S7
S9	519985	1613564	S METHOD? OR FORMULA? OR PROCEDUR? OR PROCESS?? OR SYSTEM? ? OR TECHNIQUE? OR MANNER? OR MODE? ? OR STEPS OR HOW() "TO" OR TUTORIAL? OR INSTRUCTION?
S10	33706	45485	S MEANS OR PROTOCOL?
S11	45382	74764	S SEPARAT? OR RETRACT? OR DILAT? OR SPREAD? OR (PEEL? OR DRAW? OR PULL? OR STRETCH? OR DREW OR COME? OR CAME OR COMING) () (BACK OR APART)
S12	1395	4147	S (INSERT? OR WEDG? OR SHOEHORN? OR COME? OR CAME OR COMING) () (BETWEEN? OR INSIDE? OR WITHIN OR BETWIXT?) OR DISTRACT? OR (EXPAND? OR FORCE? OR FORCING) ()APART
S13	73550	113915	S DEFLECT? OR DIVID? OR SEQUEST? OR ISOLAT? OR DISJOIN? OR DISPLAC? OR DECOUPL? OR DISSOCIAT? OR DESTRATIF? OR DELAMINAT?
S14	9161	15082	S SECTIONALIS? OR SECTIONALIZ? OR DETACH? OR DISUNIF? OR SPLIT? OR SEGREGAT? OR BIFURCAT? OR (SET OR SETS OR SETTING) ()APART?
S15	192791	290774	S IDENTIFY? OR IDENTIFIC? OR LOCAT? OR SPOT OR SPOTS OR SPOTT??? OR RECOGNI? OR DISCOVER? OR FIND? OR FOUND
S16	40373	45587	S VERIF? OR ASCERTAIN? OR PINPOINT? OR PIN()POINT? OR CONFIRM? OR SITUATE? OR SITUATING OR CORRELAT?()PRESENCE?
S17	132698	203740	S ESTABLISH? OR WHERE? OR REGION? OR VICINIT? OR ORIENT?
S18	21656	43199	S CATHETER? OR CANULA? OR CANNULA? OR CANNULLA? OR CANULLA?
S19	967	2346	S GUIDEWIRE? OR GUIDE()WIRE? OR TRANSCATHETER?
S20	18698	61714	S ARTHROSCOP? OR ENDOSCOP? OR HYSTEROSCOP? OR LAPAROSCOP? OR RESECTOSCOP? OR THORACOSCOP?
S21	1641	4224	S (ELONGAT? OR IMPLANT?) (2N) (MEMBER? OR BODY OR DEVICE? OR APPARATUS? OR INSTRUMENT? OR IMPLEMENT? OR LUMEN? OR TUBE?)
S22	78440	128090	S TOOL? OR IMPLEMENT? OR INSTRUMENT? OR DEVICE? OR APPARATUS? OR HANDHELD? OR HAND()HELD? OR APPLIANCE?
S23	33	60	S HANDPIECE? OR HANDTOOL? OR HAND()PIECE?
S24	20860	44677	S PLATE? OR PANEL? OR FLAT()PIECE? OR BRACKET? OR PLANK? OR PANE? ? OR BASEPLATE? OR PADDLE?

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S25          756          1541  S METALPLATE? OR METALSHEET? OR
METAL?()SHEET? OR BACKPLATE? OR FACEPLATE? OR ENDPLAT? OR PLATEN?
S26          8220          14642 S PLANAR()MEMBER? OR JAW OR JAWS OR FORCEP?
? OR BLADE? OR SPATULA? OR PLEDGET? OR BLUNT?
S27           0           0  S AU=(SELOVER S? OR SELOVER, S? OR SHEEHY N?
OR SHEEHY, N?)
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S29           0           0  S IC=(A61F? OR A61B? OR A61M? OR A61K? OR
F16B? OR B25B? OR A61L?)
S30           0           0  S MC=(P32? OR P31? OR P34? OR S05? OR B04?
OR B11? OR B07?)
S31           13           248  S S8 AND S2 AND S3
S32           13           316  S S31 AND S9:S30
S33        10636        165887  S S8 AND S9:S10 AND S11:S14 AND S15:S17 AND
S18:S30
S34           2658          63373 S S33 AND S5:S7(7N)S9:S10
S35        174964          404812 S (INFERIOUR? OR INFERIOR)()PEDICLE? OR
VERTEBR? OR INTERVERTEB? OR INTRAVERTEB? OR INTERSPIN?
S36          36410          117303 S SPINE? OR SPINAL? OR SPINOUS? OR
SPIN???()APOPH? OR LUMBAR?(2N)(SACRUM? OR SACRAL?)
S37           1549          4051  S (CERVICAL? OR SACRAL? OR LUMBAR? OR NECK
OR BACK OR DORSOLUMBAR? OR LUMBOSACR? OR THORACIC?) (2N) (BONE? OR OSTE?
OR OSSO? OR OSSE? OR ENDOST? OR CANCELLOUS? OR OSTO? OR SKELET? OR
OSSEO? OR OSSIF?)
S38           303          8603  S S33:S34 AND S35:S37(10N)S1:S4
S39            6           354  S S38 AND S15:S17(7N)S1:S4 AND
S11:S14(7N)S1:S4 AND S18:S26(7N)S11:S14
S40            43          1820  S S38 AND S11:S14(7N)S1:S4 AND
S18:S26(7N)(S11:S14 OR S1:S4)
S41            56          2355  S S31:S32 OR S39:S40
S42           37          1433  RD  (unique items)
; show files

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[File 2] **INSPEC** 1898-2008/May W3

(c) 2008 Institution of Electrical Engineers. All rights reserved.

[File 5] **Biosis Previews(R)** 1926-2008/Jun W3

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[File 6] **NTIS** 1964-2008/Jun W4

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[File 8] **Ei Compendex(R)** 1884-2008/Jun W2

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[File 23] **CSA Technology Research Database** 1963-2008/Jun

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[File 24] **CSA Life Sciences Abstracts** 1966-2008/Mar

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[File 25] **Weldasearch** 1966-2008/Apr

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[File 34] **SciSearch(R) Cited Ref Sci** 1990-2008/Jun W4

(c) 2008 The Thomson Corp. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2008/Nov
(c) 2008 ProQuest Info&Learning. All rights reserved.

[File 36] **MetalBase** 1965-20080619
(c) 2008 The Thomson Corporation. All rights reserved.

[File 45] **EMCare** 2008/Jun W3
(c) 2008 Elsevier B.V. All rights reserved.

[File 63] **Transport Res(TRIS)** 1970-2008/Apr
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[File 65] **Inside Conferences** 1993-2008/Jun 18
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[File 73] **EMBASE** 1974-2008/Jun 19
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**File 73: The file has been reprocessed.*

[File 95] **TEME-Technology & Management** 1989-2008/Jun W1
(c) 2008 FIZ TECHNIK. All rights reserved.

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2008/Apr
(c) 2008 The HW Wilson Co. All rights reserved.

[File 144] **Pascal** 1973-2008/Jun W2
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[File 155] **MEDLINE(R)** 1950-2008/Jun 18
(c) format only 2008 Dialog. All rights reserved.
**File 155: MEDLINE has reloaded. Please see HELP NEWS 155 for details.*

[File 431] **MediConf: Medical Con. & Events** 1998-2004/Oct B2
(c) 2004 Dr. R. Steck. All rights reserved.
**File 431: The file no longer updates.*

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec
(c) 2006 The Thomson Corp. All rights reserved.

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13
(c) 2002 The Gale Group. All rights reserved.
**File 583: This file is no longer updating as of 12-13-2002.*

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[NO SIGNIFICANT HITS AFTER REVIEW OF NPL]

Set Items Postings Description

S1 93688 286109 S MUSCLE? OR MUSCULAT? OR INTRAMUSC? OR
INTERMUSC? OR ENDOMUSC? OR TRANSMUSC?
S2 5 22 S (LONGISSIMUS OR LONGISIMMUS? OR
LONGISIMUS?) (3N) (THORAC? OR THORAX?)
S3 14 34 S MULTIFIDUS? OR MULTI() (FIDUS? OR FIDIS?)
OR MULTIFIDIS?
S4 96 598 S LATISS?()DORS?
S5 454310 1822805 S SURGER? OR SURGIC? OR SURGEON? OR MEDICAL?
OR ORTHOPED? OR ORTHOPAED?
S6 6570 39076 S ARTHROPE? OR ARTHROPAED? OR
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S7 57196 198544 S OPERAT???()ROOM? ? OR HOSPITAL? OR
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SPIN???()APOPH? OR LUMBAR?(2N) (SACRUM? OR SACRAL?) OR SUPRASPIN?
S10 2385 9816 S (CERVICAL? OR SACRAL? OR LUMBAR? OR NECK
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S12 15451 217823 S METHOD? OR FORMULA? OR PROCEDUR? OR
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HOW() "TO" OR TUTORIAL? OR INSTRUCTION?
S13 2212 11495 S MEANS OR PROTOCOL?
S14 2849 10206 S SEPARAT? OR RETRACT? OR DILAT? OR SPREAD?
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S15 172 674 S (INSERT? OR WEDG? OR SHOEHORN? OR COME? OR
CAME OR COMING)() (BETWEEN? OR INSIDE? OR WITHIN OR BETWIXT?) OR
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OR DISJOIN? OR DISPLAC? OR DECOUPL? OR DISSOCIAT? OR DESTRATIF? OR
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S17 492 1259 S SECTIONALIS? OR SECTIONALIZ? OR DETACH? OR
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S20 11416 102507 S ESTABLISH? OR WHERE? OR REGION? OR
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S22 102 976 S GUIDEWIRE? OR GUIDE()WIRE? OR
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OR LAPAROSCOP? OR RESECTOSCOP? OR THORACOSCOP?
S24 1247 16559 S (ELONGAT? OR IMPLANT?) (2N) (MEMBER? OR BODY
OR DEVICE? OR APPARATUS? OR INSTRUMENT? OR IMPLEMENT? OR LUMEN? OR
TUBE?)
S25 6107 60479 S TOOL? OR IMPLEMENT? OR INSTRUMENT? OR
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S26 11 68 S HANDPIECE? OR HANDTOOL? OR HAND()PIECE?

S27	2526	12349	S PLATE? OR PANEL? OR FLAT()PIECE? OR BRACKET? OR PLANK? OR PANE? ? OR BASEPLATE? OR PADDLE?
S28	17	60	S METALPLATE? OR METALSHEET? OR METAL?()SHEET? OR BACKPLATE? OR FACEPLATE? OR ENDPLAT? OR PLATEN?
S29	569	3668	S PLANAR()MEMBER? OR JAW OR JAWS OR FORCEP? ? OR BLADE? OR SPATULA? OR PLEDGET? OR BLUNT?
S30	4	27	S AU=(SELOVER S? OR SELOVER, S? OR SHEEHY N? OR SHEEHY, N?)
S31	0	0	S SELOVER(2N)SEAN OR SHEEHY(2N)NANCY
S32	14156	120485	S IC=(A61F? OR A61B? OR A61M? OR A61K? OR F16B? OR B25B? OR A61L?)
S33	11364	46211	S MC=(P32? OR P31? OR P34? OR S05? OR B04? OR B11? OR B07?)
S34	11	378	S S11 AND S2:S3
S35	4	27	S S30:S31
S36	4	27	S S35 NOT S34
S37	18314	152178	S S11 NOT S34:S36
S38	36	1126	S S1:S4(7N)S8:S10 AND S5:S7 AND S12:S13 AND S14:S17(10N)S1:S4
S39	33	1434	S S38 AND S32:S33
S40	36	1868	S S38:S39
S41	30	2375	S S40 AND S18:S29
S42	36	2953	S S40:S41
S43	28	2475	S S42 AND AY=1970:2003
S44	18	1168	S S42 NOT AY=2004:2008
S45	28	2722	S S43:S44
S46	28	2696	IDPAT (sorted in duplicate/non-duplicate order)
S47	28	2696	IDPAT (primary/non-duplicate records only)

; show files

[File 347] **JAPIO** Dec 1976-2007/Dec(Updated 080328)

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[File 350] **Derwent WPIX** 1963-2008/UD=200838

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34/5,K/10 (Item 10 from file: 350) [Links](#)

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0009693174

WPI Acc no: 1999-253740/199921

Related WPI Acc No: 1998-260377; 1999-228418; 1999-228419

XRAM Acc no: C1999-074062

XRPX Acc No: N1999-188923

Device and methods useful in invasive spinal surgery, especially for arthrodesis

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: BODEN S; MCKAY W F; MOCTEZUMA J; MOSKOVITZ P A

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5891147	A	19990406	US 1996670351	A	19960625	199921	B
			US 1997939848	A	19970929		

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 5891147	A	EN	31	30	Division of application	US 1996670351
					Division of patent	US 5741261

Alerting Abstract US A

NOVELTY - A device for inserting graft material into a fusion site comprises a carrier element including an elongated handle and a sheath attached to one end of the handle and an obturator portion.

DESCRIPTION - The sheath is sized to receive the graft material and includes two side walls connected by a seat which defines an opening sized to expose a portion of the graft material without permitting the graft material to exit the sheath through the opening. The obturator portion includes an elongated gripping portion with an impactor attached to the end. The impactor is sized to fit through the opening to eject graft material received with the sheath.

INDEPENDENT CLAIMS are included for (i) a method for arthrodesis of motion segments of the **spine** comprising creating a channel between posterior aspects of the **spine** to a fusion site. The channel is defined between fascia and **muscle** and terminates at a tissue barrier between the channel and the **spinal** canal. The osteogenic device is delivered through the channel to the fusion site; (ii) a method for arthrodesis of a motion segment after laminectomy comprising developing the areolar plane between the iliocostalis lumborum **muscle** from the anterior leaf of the thoracolumbar fascia to create a channel from the patient's skin to the intertransverse interval, dissecting the **longissimus thoracis muscle** from its attachments to the throacolumbar fascia, the transverse processes and the intertransverse membrane to expose the transverse process while preserving the attachment of the **longissimus thoracis** to the facet joint thereby leaving a tissue barrier between the arthrodesis site and the epidural space and delivering graft material through the channel to the intertransverse interval.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - The tool and method provide a minimally invasive **spinal surgical** technique, especially for arthrodesis.

Device and methods useful in invasive spinal surgery, especially for arthrodesis Original Titles:Minimally invasive **spinal surgical** methods & instruments. **Alerting Abstract ...the** opening to eject graft material received with the sheath. INDEPENDENT CLAIMS are

included for (i) a method for arthrodesis of motion segments of the **spine** comprising creating a channel between posterior aspects of the **spine** to a fusion site. The channel is defined between fascia and **muscle** and terminates at a tissue barrier between the channel and the **spinal** canal. The osteogenic device is delivered through the channel to the fusion site; (ii) a method for arthrodesis of a motion segment after laminectomy comprising developing the areolar plane between the iliocostalis lumborum **muscle** from the anterior leaf of the thoracolumbar fascia to create a channel from the patient's skin to the intertransverse interval, dissecting the **longissimus thoracis muscle** from its attachments to the thoracolumbar fascia, the transverse processes and the intertransverse membrane to expose the transverse process while preserving the attachment of the **longissimus thoracis** to the facet joint thereby leaving a tissue barrier between the arthrodesis site and the epidural space and delivering graft material through the channel to... ..USE - The tool and method provide a minimally invasive **spinal surgical** technique, especially for arthrodesis. **Technology Focus BIOLOGY** - Preferred Method: The tissue barrier preferably includes the posterolateral attachments of the **longissimus thoracis muscle** at the facet joint. The osteogenic device preferably includes a bone morphogenetic protein, a bioceramic and a biphasic hydroxyapatite/tricalcium phosphate ceramic. The method preferably further comprises dissecting the **longissimus thoracis muscle** from its attachments to the thoracolumbar fascia, the transverse processes and the intertransverse membrane to expose the transverse processes while preserving the attachment of **muscle** to the facet joints of the motion segment thereby leaving a tissue barrier between the channel and the epidural space. **Extension Abstract EXAMPLE** - Skeletally mature rabbits underwent L4-L5 intertransverse process arthrodesis. An open group underwent standard open **muscle**-splitting approach using rhBMP-2/collagen as a bone graft substitute and achieved 16/16 fusions. A video assisted control group underwent lateral intertransverse process... **Abstracts:** Minimally invasive **spinal surgical** techniques and **tools** are provided. The methods include separating the iliocostalis lumborum **muscle** from the anterior **leaf** of the thoracolumbar fascia to create a channel from the patient's skin to the intertransverse interval. In one embodiment, the method also includes delivering...

[select forward/backward references of above patent]:

(US-7214186-\$ or US-7166073-\$ or US-6951538-\$ or US-6929606-\$ or US-6692434-\$ or US-5395317-\$).did.

34/5,K/11 (Item 11 from file: 350) **Links**

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Derwent WPIX

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0008719463 & & *Drawing available*

WPI Acc no: 1998-260377/199823

Related WPI Acc No: 1999-228418; 1999-253740; 1999-228419

XRPX Acc No: N1998-205314

Operation method for spinal surgery - involves inserting grafting material into intra-transverse interval, through working channel formed by incision

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)

Inventor: BODEN S; MCKAY W F; MOCTEZUMA J; MOSKOVITZ P A

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5741261	A	19980421	US 1996670351	A	19960625	199823	B

Alerting Abstract US A

The method involves making a first transverse incision (11) through a patient's skin (K) of about 10 cm from the mid-line in a **spinous** process (5). A second incision (21) of about 2.5 cm is made through a thoracolumbar fascia (F) of the skin. A working channel (10) is created through the first incision and the second incision to an intra-transverse interval (7) by an endo-**surgical** retractor (50).

An iliocostalis (I) is dissected from the fascia of about 0.5 cm. An endo- **surgical** blunt probe (80) is inserted into the interval of the transverse incision (P) through the working channel. A cannula such as a sheath (103) is inserted into the channel, over the probe. Then, the probe is removed and an endoscope or a burr is inserted into the sheath. A graft material is inserted into the intra-transverse interval by an endo- **surgical** graft delivery assembly (110).

ADVANTAGE - Reduces morbidity. Avoids major dissection of **muscles** and retraction of nerves.

Operation method for spinal surgery - Original Titles: Minimally invasive **spinal surgical**

methods and instruments. **Alerting Abstract** ...The method involves making a first transverse incision (11) through a patient's skin (K) of about 10 cm from the mid-line in a **spinous** process (5). A second incision (21) of about 2.5 cm is made through a thoracolumbar fascia (F) of the skin. A working channel (10) is created through the first incision and the second incision to an intra-transverse interval (7) by an endo-**surgical** retractor (50)... ...An iliocostalis (I) is dissected from the fascia of about 0.5 cm. An endo-**surgical** blunt probe (80) is inserted into the interval of the transverse incision (P) through the working channel. A cannula such as a sheath (103) is... ...removed and an endoscope or a burr is inserted into the sheath. A graft material is inserted into the intra-transverse interval by an endo- **surgical** graft delivery assembly (110)... ...ADVANTAGE - Reduces morbidity. Avoids major dissection of **muscles** and retraction of nerves. **Abstracts:** Minimally invasive **spinal surgical** techniques and **tools are** provided. The methods include separating the iliocostalis lumborum **muscle** from the anterior **leaf** of the thoracolumbar fascia to create a channel from the patient's skin to the intertransverse interval. In one embodiment, the method also includes delivering...

Claims: A minimally invasive method for arthrodesis of a **spinal** motion **segment** of a patient including a cephalad **vertebra** and a caudal **vertebra**, comprising the steps of: making a transverse incision in the skin of the patient of about 2.5 cm at a generally posterolateral location about 10 cm from the midline at the level of a **spinous** process of the **cephalad vertebra** and centered over the border of the reflection of the thoracolumbar fascia; exposing the posterior leaf of the thoracolumbar fascia beneath the skin; making a second incision of about... ... second incision centered beneath the transverse incision; creating a channel through the transverse incision and the second incision to the intertransverse interval of the cephalad **vertebra** and the caudal **vertebra**, including dissecting the lateral border of the iliocostalis lumborum **from** the anterior leaf of

the thoracolumbar fascia;dissecting the iliocostalis lumborum and **longissimus thoracis muscles** from the fascia medially about 0.5 cm dorsal to the **junction of the** transverse process and the lateral cortex of the cephalad articular facet; andmedially dissecting the intertransverse process membrane to the hiatus of the posterior rami... .. the probe to the intertransverse interval;removing the probe from the cannula;inserting a burr into the cannula;decorticating the transverse process of the caudal **vertebra** with the burr;decorticating the transverse process of the cephalad **vertebra** with the burr; anddelivering graft material to the intertransverse interval after the decorticating **steps.>**

36/5,K/4 (Item 4 from file: 350) [Links](#)

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0015056583 & & *Drawing available*

WPI Acc no: 2005-404612/200541

Related WPI Acc No: 2005-479399

XRPX Acc No: N2005-328328

Minimally invasive delivery of spinal fixation element involves manipulating access device to second position that is angled with respect to first orientation to position spinal fixation element into spinal anchor

Patent Assignee: ANDERSON D G (ANDE-I); ROSS G J (ROSS-I); SELOVER S P (SELO-I); SICVOL C W (SICV-I)

Inventor: ANDERSON D G; ROSS G J; **SELOVER S P**; SICVOL C W

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050131421	A1	20050616	US 2003738130	A	20031216	200541	B

Alerting Abstract US A1

NOVELTY - The method involves advancing a spinal fixation element through the lumen in a percutaneous access device (12) in first position that is parallel to the longitudinal axis of the access device. The access device can be manipulated to a second position that is angled with respect to first orientation to position the spinal fixation element into a spinal anchor (50).

DESCRIPTION - An INDEPENDENT CLAIM is included for a percutaneous access device.

USE - For delivering spinal fixation element to spinal anchor site in minimally invasive manner.

ADVANTAGE - Enables the access device to be positioned at several angles with respect to the patient's spinal column. Reduce amount of trauma caused to the patient and minimize damage to the muscle surrounding the surgical site.

DESCRIPTION OF DRAWINGS - The figure is the perspective view of the percutaneous access device.

12 Percutaneous access device

12a,12b Proximal and distal ends of access device
 14 Opening
 50 Spinal anchor

...Inventor: **SELOVER S P** Original Publication Data by AuthorityArgentina**Publication**
No. ...Inventor name & address:**Selover, Sean P**

47/5,K/4 (Item 4 from file: 350) [Links](#)
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0015333551 & & *Drawing available*
 WPI Acc no: 2005-683803/200570
 Related WPI Acc No: 2002-415044; 2004-517198
 XRPX Acc No: N2005-560966

Retractor for microsurgical intermuscular spinal surgery, has blade with face having variable width and upper proximal edge spaced apart from intersection

Patent Assignee: RITLAND S (RITL-I)

Inventor: RITLAND S

Patent Family (2 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050228233	A1	20051013	US 2000236584	P	20000929	200570	B
			US 2001969138	A	20011001		
			US 2003745068	A	20031222		
			US 2004556967	P	20040326		
			US 200591970	A	20050328		
US 7166073	B2	20070123	US 200591970	A	20050328	200708	E

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050228233	A1	EN	16	19	Related to Provisional	US 2000236584
					Continuation of application	US 2001969138
					C-I-P of application	US 2003745068
					Related to Provisional	US 2004556967
					Continuation of patent	US 6692434

Alerting Abstract US A1

NOVELTY - The retractor (10) includes a **blade** (14) interconnected to a handle (12) at an

intersection. The **blade** has a face having a variable width and an upper proximal edge spaced apart from the intersection. The distal end of the retractor has a coplanar forward projecting tooth for laterally engaging an articular complex of the vertebra of the spine.

USE - For microsurgical **intermuscular spinal surgery**. For exposure of the bony **spine** for screw placement.

ADVANTAGE - Enables performing an **instrumented** lumbar arthrodesis with a minimal approach which spares the lumbar muscles from **surgical** disruption.

DESCRIPTION OF DRAWINGS - The figure shows the side perspective view of the retractor.

10 Retractor

12 Handle

14 **Blade**

16 Forward projecting prominence

17 Semi-circular shaped front edge

Retractor for microsurgical intermuscular spinal surgery, has blade with face having variable width and upper proximal edge spaced apart from intersection Original

Titles:Method and device for microsurgical intermuscular spinal surgery Method and device for microsurgical intermuscular spinal surgery Alerting Abstract ...NOVELTY -

The retractor (10) includes a **blade** (14) interconnected to a handle (12) at an intersection. The **blade** has a face having a variable width and an upper proximal edge spaced apart from the intersection. The distal end of the retractor has a... USE - For microsurgical **intermuscular spinal surgery**. For exposure of the bony **spine** for screw placement...

...ADVANTAGE - Enables performing an **instrumented** lumbar arthrodesis with a minimal approach which spares the lumbar muscles from **surgical** disruption... ...14 **Blade**

Abstracts:A retractor is provided for performing spinal **surgery** with a minimal approach, and which spares the lumbar muscles from **surgical** disruption. A preferred embodiment includes a **blade** having first and second faces **wherein** the faces are positioned substantially transverse to one another, and **wherein** at least one of the faces has a tapered width.

Alternatively, both the first and second faces are tapered. Additionally, a third face positioned transverse... ... second face also preferably includes at least one tooth, and more preferably, a plurality of teeth at its distal end for laterally engaging an articular **process** of a vertebra of the spine... ... A retractor is provided for performing spinal **surgery** with a minimal approach, and which spares the lumbar muscles from **surgical** disruption. A preferred embodiment includes a **blade** having first and second faces **wherein** the faces are positioned substantially transverse to one another, and **wherein** at least one of the faces has a tapered width.

Alternatively, both the first and second faces are tapered. Additionally, a third face positioned transverse... ... second face also preferably includes at least one tooth, and more preferably, a plurality of teeth at its distal end for laterally engaging an articular **process** of a vertebra of the spine. **Claims:1.** A retractor for use in **surgery** of one or more vertebra of a spine, the retractor comprising:a handle;a **blade** interconnected to said handle at an intersection, said **blade** including a first face and a second face positioned transverse to said first face, said second face having an upper proximal edge spaced apart from... ... What is claimed is:1. A retractor for use in **surgery** of one or more vertebra of a spine, the retractor comprising: a handle;a **blade** interconnected to said handle at an intersection, said **blade** including a first face and a second face positioned transverse to said first face, said second face having an upper proximal edge spaced apart from said intersection, and said second face having a varied width, said **blade** further comprising a third face **located** transverse to said first face,

wherein said first face is substantially perpendicular to said third face, and further comprising a quarter-rounded bend interconnecting said first face to said third face, **wherein** said third face is substantially parallel to said second face.... Basic Derwent Week: 200570...

47/5,K/5 (Item 5 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0015162327 & & *Drawing available*

WPI Acc no: 2005-511909/200552

XRPX Acc No: N2005-417739

Spinal target site access providing method for use during spinal surgery, involves piercing skin with a distal tip of initial dilator and advancing distal tip in lateral direction through psoas muscle toward spinal target site

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: FINLEY E; MARTINELLI S; MILES P; PIMENTA L

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050149035	A1	20050707	US 2003512594	P	20031017	200552	B
			US 2004967668	A	20041018		

Alerting Abstract US A1

NOVELTY - The **method** involves inserting a portion of a finger through an incision and into a retroperitoneal space. A skin is pierced with a distal tip of an initial dilator through another incision and the tip is directed toward a psoas muscle. The distal tip is advanced in lateral direction through the psoas **muscle** toward a **spinal** target site, and a stimulation electrode coupled to the dilator detects nerves proximal to the dilator.

USE - Used for providing access to a spinal target site during spinal **surgery**.

ADVANTAGE - The **method** provides a lateral approach to the spine, thereby reducing the potential of damaging nerves while advancing **instruments** through the psoas muscle.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a tissue retraction assembly forming part of a **surgical** access **system**.

12, 16, 18 Retractor **blades**

14 Linkage assembly

20 Handle assembly

24, 25 Retractor extenders

29 Spunding groove

Spinal target site access providing method for use during spinal surgery, involves piercing skin with a distal tip of initial dilator and advancing distal tip in lateral direction through psoas muscle toward spinal target site Original Titles:Surgical access

system and related **methods** **Alerting Abstract** ...NOVELTY - The **method** involves inserting a portion of a finger through an incision and into a retroperitoneal space. A skin is pierced with a distal tip of an initial dilator through another incision and the tip is directed toward a psoas muscle. The distal tip is advanced in lateral direction through the psoas **muscle** toward a **spinal** target site, and a stimulation electrode coupled to the dilator detects nerves proximal to the dilator. USE - Used for providing access to a spinal target site during spinal **surgery**. ... ADVANTAGE - The **method** provides a lateral approach to the spine, thereby reducing the potential of damaging nerves while advancing **instruments** through the psoas muscle... DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a tissue retraction assembly forming part of a **surgical** access **system**. ... 12, 16, 18 Retractor **blades** **Abstracts**: A **surgical** access **system** including a tissue distraction assembly and a tissue retraction assembly, both of which may be equipped with one or more electrodes for use in detecting the existence of (and optionally the distance and/or direction to) neural structures before, during, and after the **establishment** of an operative corridor to a **surgical** target site. Some embodiments of the **surgical** access **system** may be particularly suited for **establishing** an operative corridor to a **surgical** target site in the spine. Such an operative corridor may be **established** through the retroperitoneal space and the psoas muscle during a direct lateral, retroperitoneal approach to the spine. **Claims:1.** A **method** included in providing **surgical** access to a spinal target site through a substantially lateral, retroperitoneal approach, the **method** comprising: inserting at least a portion of a finger through a first incision and into a retroperitoneal space; piercing the skin with a distal tip... through a second incision, and directing the distal tip of the dilator toward the finger; using the finger to direct the distal tip of the **dilator** toward the psoas muscle; and advancing the distal tip of the initial **dilator** in a substantially lateral direction through the psoas **muscle** toward a **spinal** target site while using a stimulation electrode coupled to the initial dilator to detect nerves proximal to the initial dilator.... Basic Derwent Week: 200552...

[this application]

47/5,K/6 (Item 6 from file: 350) [Links](#)

Fulltext available through: [Order File History](#)

Derwent WPIX

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0015129866 & & *Drawing available*

WPI Acc no: 2005-479399/200548

Related WPI Acc No: 2005-404612

XRPX Acc No: N2005-390244

Method for delivering spinal fixation component, involves manipulating Spinal fixation component to extend in second orientation angled with respect to first orientation to position spinal fixation component in relation to spinal anchor

Patent Assignee: DEPUY SPINE INC (DEPU-N)

Inventor: ANDERSON D; ANDERSON D G; ROSS G; ROSS G J; RUBERTE R;

SELOVER S; SELOVER S P; SHEEHY N; SHEEHY N M; SICVOL C; SICVOL C W;

RUBERTE R A

Patent Family (9 patents, 107 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005060534	A2	20050707	WO 2004US39919	A	20041129	200548	B

US 20050154389	A1	20050714	US 2003738130	A	20031216	200548	E
			US 2004711704	A	20040930		
EP 1694225	A2	20060830	EP 2004812446	A	20041129	200657	E
			WO 2004US39919	A	20041129		
AU 2004304934	A1	20050707	AU 2004304934	A	20041129	200680	E
BR 200417589	A	20070320	BR 200417589	A	20041129	200723	E
			WO 2004US39919	A	20041129		
JP 2007513739	W	20070531	WO 2004US39919	A	20041129	200737	E
			JP 2006545689	A	20041129		
CN 1893882	A	20070110	CN 200480037394	A	20041129	200740	E
KR 2007029650	A	20070314	WO 2004US39919	A	20041129	200755	E
			KR 2006714264	A	20060714		
MX 2006006783	A1	20070401	WO 2004US39919	A	20041129	200777	E
			MX 20066783	A	20060615		

Alerting Abstract WO A2

NOVELTY - Spinal fixation component is advanced through a lumen (12c) in percutaneous access **device** (12) in first **orientation** parallel to longitudinal axis (L) of percutaneous access **device**. The spinal fixation component is then manipulated to extend in second **orientation** angled with respect to first **orientation** to position the spinal fixation component in relation to a spinal anchor (50).

DESCRIPTION - The spinal anchor is percutaneously delivered to a vertebral body with the percutaneous access **device** mated with the spinal anchor. The percutaneous access **device** includes the lumen extending through the percutaneous access **device** and defining the longitudinal axis. INDEPENDENT CLAIMS are also included for the following:

- a. a minimally invasive **surgical method**;
- b. a percutaneous access **device** for introducing spinal fixation component to patient's body;
- c. a dissection **tool** for **separating muscles**; and
- d. a **medical device** kit.

USE - For delivering spinal fixation component in minimally invasive **manner** to spinal anchor site within patient's spine.

ADVANTAGE - Reduces amount of trauma caused to patient. Minimizes damage to muscle surrounding the **surgical** site.

DESCRIPTION OF DRAWINGS - The figure is the perspective view of the percutaneous access **device** coupled to spinal anchor.

12 Percutaneous access **device**

12c Lumen

50 Spinal anchor

52 Head

54 Threaded shank

L Longitudinal axis

Method for delivering spinal fixation component, involves manipulating Spinal fixation component to extend in second orientation angled with respect to first orientation to position spinal fixation component in relation to spinal anchor ...Original Abstract

...NOVELTY - Spinal fixation component is advanced through a lumen (12c) in percutaneous access **device** (12) in first **orientation** parallel to longitudinal axis (L) of percutaneous access **device**. The spinal fixation component is then manipulated to extend in second **orientation** angled with respect to first **orientation** to position the spinal fixation component in relation to a spinal anchor (50). DESCRIPTION - The spinal anchor is percutaneously delivered to a vertebral body with the percutaneous access **device** mated with the spinal anchor. The percutaneous access **device** includes the lumen extending through the percutaneous access **device** and defining the longitudinal axis. INDEPENDENT CLAIMS are also included for the following... ... a minimally invasive **surgical method**; a percutaneous access **device** for introducing spinal fixation component to patient's body; a dissection **tool** for **separating muscles**; and a **medical device** kit... ... USE - For delivering spinal fixation component in minimally invasive **manner** to spinal anchor site within patient's spine... ... ADVANTAGE - Reduces amount of trauma caused to patient. Minimizes damage to muscle surrounding the **surgical** site... ... DESCRIPTION OF DRAWINGS - The figure is the perspective view of the percutaneous access **device** coupled to spinal anchor... ...

12 Percutaneous access **device** Abstracts:Minimally invasive **methods** and **devices** for introducing a spinal fixation element into a **surgical** site in a patient's spinal column are provided. In one embodiment, a dissection **tool** is provided for **separating muscles** along a **muscle** plane without causing damage to the **muscles**. The dissection **tool** can also include a lumen extending therethrough for receiving a **guide wire**. The **tool** allows the **guide wire** to be positioned relative to a vertebra, and once properly positioned, the **tool** can be removed to allow a spinal anchor to be delivered along the **guide wire** and implanted into the vertebra... ... Minimally invasive **methods** and **devices** for introducing a spinal fixation element into a **surgical** site in a patient's spinal column are provided. In one embodiment, a dissection **tool** is provided for **separating muscles** along a **muscle** plane without causing damage to the **muscles**. The dissection **tool** can also include a lumen extending therethrough for receiving a **guide wire**. The **tool** allows the **guide wire** to be positioned relative to a vertebra, and once properly positioned, the **tool** can be removed to allow a spinal anchor to be delivered along the **guide wire** and implanted into the vertebra... ... Minimally invasive **methods** and **devices** for introducing a spinal fixation element into a **surgical** site in a patient's spinal column are provided. In one embodiment, a dissection **tool** is provided for **separating muscles** along a **muscle** plane without causing damage to the **muscles**. The dissection **tool** can also include a lumen extending therethrough for receiving a **guide wire**. The **tool** allows the **guide wire** to be positioned relative to a vertebra, and once properly positioned, the **tool** can be removed to allow a spinal anchor to be delivered along the **guide wire** and implanted into the vertebra..... **Claims:1.** A minimally invasive **surgical method**, comprising:forming an incision through tissue **located** adjacent to a vertebra in a patient's **spinal** column;**identifying** a **muscle** plane;inserting a substantially planar **blunt** tip of a **tool** through the incision while manipulating the **blunt** tip along the **muscle** plane extending between the incision and the **vertebra** to **separate** the **muscles**.>

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0013651879 & & *Drawing available*

WPI Acc no: 2003-747931/200370

Related WPI Acc No: 2007-610956; 2007-882060

XRPX Acc No: N2003-599612

Retractor for percutaneous surgery, has two parts moveable from unexpanded configuration to expanded configuration where working channel formed by one part tapers in size from proximal ends to distal ends in patient

Patent Assignee: FOLEY K T (FOLE-I); LIM R (LIMR-I); ROEHM T E (ROEH-I); SDGI HOLDINGS INC (SDGI-N); SMITH M M (SMIT-I); WARSAW ORTHOPEDIC INC (WARS-N)

Inventor: FOLEY K T; LIM R; LIM R K; ROEHM T E; SMITH M M

Patent Family (9 patents, 102 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030191371	A1	20031009	US 2002117440	A	20020405	200370	B
WO 2003086202	A2	20031023	WO 2003US10090	A	20030402	200370	E
AU 2003262144	A1	20031027	AU 2003262144	A	20030402	200436	E
EP 1494592	A2	20050112	EP 2003746580	A	20030402	200504	E
			WO 2003US10090	A	20030402		
KR 2004102070	A	20041203	KR 2004715882	A	20041005	200525	E
JP 2005521533	W	20050721	JP 2003583230	A	20030402	200549	E
			WO 2003US10090	A	20030402		
CN 1735380	A	20060215	CN 2003813124	A	20030402	200643	E
AU 2003262144	B2	20061214	AU 2003262144	A	20030402	200729	E
US 7261688	B2	20070828	US 2002117440	A	20020405	200757	E

Alerting Abstract US A1

NOVELTY - The retractor (20) has a working channel formed by a part (22) coupled with another part (42). The two parts are positionable in an unexpanded configuration with distal ends (24, 44) of the parts in a patient and proximal ends (26, 46) of the parts outside the patient. The parts are moveable to an expanded configuration **where** the working channel tapers in size from the proximal to the distal ends.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a **method** for performing a **surgical procedure** at a **location** in a patient.

USE - Used for percutaneous **surgery** in patients.

ADVANTAGE - The **retractor** provides minimally invasive **spinal surgery** by requiring minimal **muscle** and tissue dissection and **procedures** performed under local anesthesia, thereby reducing recovery time and post-operative pain.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view looking toward one side of a retractor in an unexpanded configuration.

20 Retractor

22, 42 Working channel parts

23 Semi-cylindrical body of working channel part

24, 44 Distal ends

Alerting Abstract ...of the parts in a patient and proximal ends (26, 46) of the parts outside the patient. The parts are moveable to an expanded configuration **where** the working channel tapers in size from the proximal to the distal ends. DESCRIPTION - An INDEPENDENT CLAIM is also included for a **method** for performing a **surgical procedure** at a **location** in a patient... USE - Used for percutaneous **surgery** in patients... ADVANTAGE - The **retractor** provides minimally invasive **spinal surgery** by requiring minimal **muscle** and tissue dissection and **procedures** performed under local anesthesia, thereby reducing recovery time and post-operative pain... **Abstracts:Methods** and **devices** for performing percutaneous **surgery** in a patient are provided. A retractor includes a working channel formed by a first portion coupled to a second portion. The first and second... **Methods** and **devices** for performing percutaneous **surgery** in a patient are provided. A retractor includes a working channel formed by a first portion coupled to a second portion. The first and second... **Methods** and **devices** for performing percutaneous **surgery** in a patient are provided. A retractor includes a working channel formed by a first portion coupled to a second portion. The first and second... **Methods** and **devices** for performing percutaneous **surgery** in a patient are provided. A retractor includes a working channel formed by a first portion coupled to a second portion. The first and second... **Claims:**What is claimed is:1. A retractor for percutaneous **surgery** in a patient, comprising:a first portion having a proximal end and a distal end;a second portion having a proximal end coupled to said... ends and said proximal ends of said first and second portions and a size between said first portion and said second portion along said length, **wherein**:said first and second portions are positionable in an unexpanded configuration with said distal ends of said first and second portions in the patient and said proximal ends of said first and second portions outside the patient; andsaid first and second portions are movable to an expanded configuration **wherein** said working channel tapers in size from said proximal ends outside the patient to said distal ends in the patient... What is claimed is:1. A refractor for percutaneous **surgery** in a patient, comprising: a first portion having a proximal end and a distal end;a second portion having a proximal end coupled to said... ends and said proximal ends of said first and second portions and a size between said first portion and said second portion along said length, **wherein**: said first and second portions are positionable in an unexpanded configuration with said distal ends of said first and second portions in the patient and said proximal ends of said first and second portions outside the patient; andsaid first and second portions are movable to an expanded configuration **wherein** said working channel tapers in size from said distal ends in the patient to said proximal ends outside the patient and said opposite edges of...

47/5,K/15 (Item 15 from file: 350) [Links](#)

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0012468704 & *Drawing available*

WPI Acc no: 2002-415044/200244

Related WPI Acc No: 2004-517198; 2005-683803

XRPX Acc No: N2002-326440

Tissue retractor for microsurgical intermuscular lumbar arthrodesis, has blade orthogonal to handle, which retracts tissue

Patent Assignee: RITLAND S (RITL-I)

Inventor: RITLAND S

Patent Family (2 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020049368	A1	20020425	US 2000236584	P	20000929	200244	B
			US 2001969138	A	20011001		
US 6692434	B2	20040217	US 2001969138	A	20011001	200413	E

Alerting Abstract US A1

NOVELTY - A **retractor blade** engaging with **muscle** is at an angle of 90(deg) with respect to **retractor** handle, to retract tissue. The **blade** end is bent away from the handle.

USE - For microsurgical intermuscular lumbar arthrodesis.

ADVANTAGE - The **retractor** requires decreased neurovascular and **muscle** dissection, and ensures the **retraction** operation to be made easier, by maintaining the **retractor** in a desired position. The retractor avoids any **muscle detachment**, provides easy access to **spine** and avoids damage to the neurovascular supply of posterior musculature.

DESCRIPTION OF DRAWINGS - The figure shows a side perspective view of the tissue retractor.

Tissue retractor for microsurgical intermuscular lumbar arthrodesis, has blade orthogonal to handle, which retracts Alerting Abstract ...NOVELTY - A **retractor blade** engaging with **muscle** is at an angle of 90(deg) with respect to **retractor** handle, to retract tissue. The **blade** end is bent away from the handle. ...ADVANTAGE - The **retractor** requires decreased neurovascular and **muscle** dissection, and ensures the **retraction** operation to be made easier, by maintaining the **retractor** in a desired position. The retractor avoids any **muscle detachment**, provides easy access to **spine** and avoids damage to the neurovascular supply of posterior musculature **Abstracts:**An **instrument** useful in performing **lumbar** arthrodesis with a minimal approach which spares the lumbar **muscles** from **surgical** disruption and includes one of two **retractor** designs having blades **angled** approximately 90(deg) with respect to each respective retractor handle. One **blade** is bent at an end portion thereof in a direction away from the handle portion. The other **blade** has first and **second blade** faces, with the **second** face having at least two toothed structures **located** thereon. An **instrument** useful in performing lumbar arthrodesis with a minimal **approach** which spares the lumbar **muscles** from **surgical** disruption and includes one of two **retractor** designs **having** blades angled approximately 90(deg) with **respect** to each **respective** retractor handle. One **blade** is bent at an end portion thereof in a direction away from the handle portion. The other **blade** has first and second **blade** faces, with the **second** face having at least **two** toothed structures **located** thereon. ...**Claims:**is claimed is:1. A tissue retractor for use in lumbar arthrodesis comprising:an elongated retractor having a handle at one end and a retractor **blade** at a second end, said retractor **blade** having a **hooked** prominence to engage a lateral facet **or muscle**, said **retractor** blade being angled with respect to said handle **and** having a depth so as to provide adequate **retraction** when performing a screw placement operation, said **blade** having an end that is bent away from the

direction **of** said first handle... ... What is claimed is:1. A **surgical** retractor **device** for use with a rod implant, comprising:a handle and a **blade**, said **blade** angled with respect to said **handle** at **approximately** 90(deg), said **blade** having a depth ranging from 2-10 cm and **having** first **and** second faces, said first face being substantially perpendicular to said second **face**, said first face being angled approximately 90(deg) with respect to said handle, and said second face having at least two toothed structures **oriented** co-planar with said second face and substantially perpendicular to said first face, said at least two toothed structures **situated** proximate two indentations, **at** least one of said two indentations sized for stabilizing the retractor against the rod implant, said at least two **toothed** structures and said indentations **located** along a forward projecting lateral edge of said second face.
Basic Derwent Week:
200244
